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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/611,491	06/30/2003	Eric J. Horvitz	MS303531.2/MSFTP453USA	3334
27195	7590	10/04/2007	EXAMINER	
AMIN. TUROCY & CALVIN, LLP			SALL, EL HADJI MALICK	
24TH FLOOR, NATIONAL CITY CENTER			ART UNIT	PAPER NUMBER
1900 EAST NINTH STREET				
CLEVELAND, OH 44114			2157	
			NOTIFICATION DATE	DELIVERY MODE
			10/04/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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MN

Office Action Summary	Application No.	Applicant(s)	
	10/611,491	HORVITZ, ERIC J.	
	Examiner El Hadji M. Sall	Art Unit 2157	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 10 July 2007.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1,3-27 and 30-62 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1, 3-27 and 30-62 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is responsive to the amendment filed on July 10, 2007. Claims 1, 4, 11, 13, 27, 35, 57 and 58 are amended. Claims 1, 3-27 and 30-62 are pending. Claims 1, 3-27 and 30-62 represent bounded-deferral policies for guiding the timing of alerting, interaction and communications using local sensory information.

2. ***Claim Rejections - 35 USC § 102***

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000.

Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 1, 3-4, 7, 8, 13, 15, 17, 18, 19, 21-46, 48-55 and 58-62 are rejected under 35 U.S.C. 102(e) as being anticipated by Heinzel et al. U.S. 20040225718.

Heinzel teaches the invention as claimed including alert notification engine (see abstract).

As to claim 1, Heinzel teaches a system that facilitates conveying notifications, comprising:

a component to determine a time period to deliver information based upon an urgency of the information, the time period is a bounded deferred period that relates to a deadline for making a user aware of a message contained information of value to the user, wherein a tolerance of deferral is dependent on the urgency of the information (paragraph [0112]); and

a notification component to convey the information based at least in part upon endpoint sensing of at least one device and the time period (paragraphs [0112-0113]).

As to claim 27, Heinzel teaches a system that facilitates conveying notifications, comprising:

a device that is associated with a user, the device gathers data related to at least one of an attentional state of the user and location of the user (paragraph [0007]); and

a notification component that employs at least a portion of the gathered data and bounded deferral data in connection with providing a notification, the bounded deferral data is determined in consideration of a tolerated period that is a function of at least one of a notification sender and a type and/or content of message delivered (paragraphs [0112-0113]).

As to claim 58, Heinzel teaches a method that facilitates conveying notifications, comprising:

using at least one device to determine and/or infer information regarding an attentional state and/or location of a user (paragraph [0007]);

determining a bounded deferral period that relates to a deadline for making a user aware of a message containing information of value to the user, wherein a tolerance or deferral is dependent on the urgency of the information of value (paragraph [0112]); and

employing the bounded deferral period and the inferred information in connection with decision-making regarding conveying a notification to the user (figure 1; paragraphs [0112-0113]).

As to claim 3, Heinzel teaches the system of claim 1, the endpoint sensing relates to a transmission reliability associated with a probability that a message is conveyed to a user given endpoint sensing of the device and/or estimates given background

information (figure 6; figure 1).

As to claim 4, Heinzel teaches the system of claim 1, the bounded deferral is associated with at least one of sensors, calendar information, an alerting type and a time of day to determine whether a user is too busy to receive an alert currently or in a predetermined time in the future (paragraph [0005]; paragraph 0042).

As to claim 7, Heinzel teaches the system of claim 4, the sensors determine a user current cost of interruption or state of busy-ness (paragraph [0027]).

As to claim 8, Heinzel teaches the system of claim 4, the sensors determine when a user available to receive information (paragraph [0029]).

As to claim 13, Heinzel teaches the system of claim 2, further comprising a prioritization system, wherein the bounded deferral period is a function of an inferred urgency or priority of a message (paragraph [0066]).

As to claim 15, Heinzel teaches the system of claim 14, further comprising a deferral period until a user looks away from an item of importance absorbing the user's attention (paragraph [0061]; figures 8-12).

As to claim 17, Heinzel teaches the system of claim 1, further comprising a

component that causes bounded deferral and transmission reliability to interact (figure 2).

As to claim 18, Heinzel teaches the system of claim 17, further comprising a component to determine if a transmission reliability has reached a threshold before a deferral tolerance is reached, a user can be notified via a first type of alert while bypassing a second type of alert (paragraph [0005]).

As to claim 19, Heinzel teaches the system of claim 1, the bounded deferral period is applied to putting a caller on hold and enabling a break through over a predetermined time horizon (paragraph [0102]).

As to claims 21 and 22, Heinzel teaches the system of claim 1, further comprising bounded deferral policies that are coordinated with other parameters, and the other parameters are related to a user's location and/or context. (paragraph [0006]; paragraph [0024]).

As to claim 23, Heinzel teaches the system of claim 1, further comprising tasks of predetermined length that are available in contexts where a user is reviewing media (figure 5).

As to claim 24, Heinzel teaches the system of claim 1, further comprising global

bounded deferral policies that are viewed as approximation of more detailed decision-theoretic analyses (paragraph [0044]).

As to claim 25, Heinzel teaches the system of claim 1, further comprising a component to provide low time criticality messages during a breakthrough period of another message (figure 6).

As to claim 26, Heinzel teaches the system of claim 2, when a bounded deferral policy has been reached, an endpoint device can be instructed to send a message back to a central notification manager or a sender of an alert, informing the central notification manager that the endpoint device is unsuccessful at relaying a message (paragraph [0098]).

As to claim 38, Heinzel teaches the system of claim 27, the device is associated with one or more application models (paragraph [0005]).

As to claim 48, Heinzel teaches the system of claim 27, at least one of the devices and the notification component determines at least one of attention-sensitive costs of disruption, a value of information, a loss based in decreased fidelity, and a transmission reliability associated with the use of an alerting modality of the device (paragraph [0005]).

As to claim 49, Heinzel teaches the system of claim 48, the transmission reliability of the device is represented as a probability p , $p(transrel.vertline.context)$, that is the likelihood of getting through on the device given context, the context is a function, $f(context)$ or $f(sensed\ states)$ (figure 6; figure 1).

As to claims 50, 51, 52 and 53, Heinzel teaches the system of claims 27, 50, 50 and 52, respectively, further comprising a subscription service provided at a notification source that enables users to tag notifications according to a predefined priority, the predefined priority is assigned based upon a happening of a condition, further comprising a subscription user interface to enable users to configure attributes of a notification, and the attributes are defined in a notification schema (paragraph [0043]; paragraph [0066]; paragraph [0010]; paragraph [0055]).

As to claims 54 and 55, Heinzel teaches the system of claims 27 and 54, respectively, further comprising a prioritization system that automatically assigns priorities to the notification, and a max deferral setting that is associated with a notification priority to enable at least one of a delivery of the notification at a time-out of the max deferral, and deferral of the notification to a likely available free state (paragraph [0066]).

As to claim 59, Heinzel teaches the method of claim 58, further comprising employing a decision model in connection with the decision-making, the decision model

includes processing of at least one of a value of actions and a cost of actions to determine an expected utility regarding conveying the notification to the user (figure 1).

As to claims 60, 61 and 62, Heinzel teaches the method of claim 59, the value of actions and cost of actions are determined in part from a consideration of the user's attentional focus and workload, the user's attentional focus and workload is determined in part by a consideration of at least one of perceptual sensors, device interactions, a calendar, a day, and a time, and the attentional state and/or location of the user is determined from a temporal decision model (figure 3; paragraph [0005]).

4. Claim 57 is rejected under 35 U.S.C. 102(e) as being anticipated by Emens U.S. 6,591,279.

Emens teaches the invention substantially as claimed including system and method for computer based notifications of real-world events using digital images (see abstract).

As to claim 57, Emens teaches a system that facilitates communications, comprising:

means for sensing a state of a user (figure 1);

means for determining a bounded deferred period that relates to a deadline for conveying information of value to a user (column 2, lines 42-45, Emens discloses he digital image provides a visual record of the event being monitored by the sensor and the image is transmitted to the user with the notification message (i.e. "conveying information of value to a user") when the sensor indicates that the event has occurred (i.e. "means for determining bounded deferred period that relates to a deadline"); and means for employing the sensed state in connection with conveying a notification to the user (figure 1).

5.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heinzel et al. U.S. 20040225718 in view of Maruyama et al. U.S. 2003004635.

Heinzel teaches the invention substantially as claimed including alert notification engine (see abstract).

As to claims 5 and 6, Heinzel teaches the system of claims 4 and 5, respectively.

Heinzel fails to teach explicitly policies for processing a deadline associated with conveying notifications, and if the deadline is reached and an alert has not yet been delivered, the alert is delivered at the deadline; if a deadline will pass and there is no purpose in waiting, then the alert is passed immediately.

However, Maruyama teaches document management system. Maruyama teaches policies for processing a deadline associated with conveying notifications, and if the deadline is reached and an alert has not yet been delivered, the alert is delivered at the deadline; if a deadline will pass and there is no purpose in waiting, then the alert is passed immediately (paragraph [0009]; paragraph [0083-0084]).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Heinzel in view of Maruyama to provide policies for processing a deadline associated with conveying notifications, and if the deadline is reached and an alert has not yet been delivered, the alert is delivered at the deadline; if a deadline will pass and there is no purpose in waiting, then the alert is passed immediately. One would be motivated to do so to allow reminding the department using

the mailing means (abstract).

7. Claims 9, 10, 14, 16, 20 and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heinzel et al. U.S. 20040225718 in view of Emens et al. U.S. 6,591,279.

Heinzel teaches the invention substantially as claimed including alert notification engine (see abstract).

As to claims 9, 10, 14 and 16, Heinzel teaches the system of claims 3, 9, 1 and 9, respectively.

Heinzel fails to teach explicitly sensors that determine information relating to the transmission reliability, the sensor information is passed to a central notification manager that is deliberating about where to send messages, or an endpoint device computes the transmission reliability from related sensors and passes the transmission reliability to the central notification manager, a gaze sensor to determine when a user observes a display, and the sensors compute a transmission reliability based on at least one of heat, motion, acoustical information, and wireless information.

However, Emens teaches system and method for computer-based notifications or real-world events using digital images. Emens teaches sensors that determine information relating to the transmission reliability, the sensor information is passed to a

central notification manager that is deliberating about where to send messages, or an endpoint device computes the transmission reliability from related sensors and passes the transmission reliability to the central notification manager, and gaze sensor, and the sensors compute a transmission reliability based on at least one of heat, motion, acoustical information, and wireless information (column 2, line 59 to column 3, line 9; column 1, line 49 to column 2, line 2).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine Heinzel in view of Emens to provide sensors that determine information relating to the transmission reliability, and the sensor information is passed to a central notification manager that is deliberating about where to send messages, or an endpoint device computes the transmission reliability from related sensors and passes the transmission reliability to the central notification manager, a gaze sensor to determine when a user observes a display, and the sensors compute a transmission reliability based on at least one of heat, motion, acoustical information, and wireless information. One would be motivated to do so to allow transmitting a notification message to one of the client computers (abstract).

As to claim 20, Heinzel teaches the system of claim 19.

Heinzel fails to teach explicitly the bonded deferral is applied by an endpoint device or by a standard communications system connected to sensors.

However, Emens teaches sensors (figure 1, item 120).

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to combine Heinzel in view of Emens to provide the bonded deferral is applied by an endpoint device or by a standard communications system connected to sensors. One would be motivated to do so to allow notifying the proxy server that a real world event has occurred (abstract).

As to claim 47, Heinzel teaches the system of claim 38.

Heinzel fails to teach explicitly the application models employ at least one of a Global Positioning System (GPS), an 802.11 signal strength sensor, an infrared proximity sensors, and a touch sensor.

However, Emens teaches sensors (figure 1, item 120).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Heinzel in view of Emens to provide the application models employ at least one of a Global Positioning System (GPS), an 802.11 signal strength sensor, an infrared proximity sensors, and a touch sensor. One would be motivated to do so to allow notifying the proxy server that a real world event has occurred (abstract).

8. Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heinzel et al. U.S. 20040225718 in view of Gusler et al. U.S. 20050050143.

Heinzel teaches the invention substantially as claimed including alert notification

engine (see abstract).

As to claims 11 and 12, Heinzel teaches the system of claims 1 and 11, respectively.

Heinzel fails to teach explicitly the bounded deferral period is employed to allow a system to take dialog initiative in a conversational application, and the application at least one of initiates a conversation or continues a conversation that has been interrupted by a user's attention being diverted elsewhere for a task or another conversation.

However, Gusler teaches method and apparatus for enhancing instant messaging systems. Gusler teaches the bounded deferral period is employed to allow a system to take dialog initiative in a conversational application, and the application at least one of initiates a conversation or continues a conversation that has been interrupted by a user's attention being diverted elsewhere for a task or another conversation (paragraph [0009]).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Heinzel in view of Gusler to provide the bounded deferral period is employed to allow a system to take dialog initiative in a conversational application, and the application at least one of initiates a conversation or continues a conversation that has been interrupted by a user's attention being diverted elsewhere for a task or another conversation. One would be motivated to do so to allow instant messaging session (abstract).

Claims 30-37, 39-46 and 56 do not teach or define any new limitations above claims 1-27, 38 and 47-55 and 57-62 and therefore are rejected for similar reasons.

9. *Response to Arguments*

Applicant's arguments filed 07/10/07 have been fully considered but they are not persuasive.

(A) Applicant argues that Heinzel et al. is silent regarding a bounded deferral period that relates to a deadline for making a user aware of a message containing information of value to the user.

In regards to point (A), examiner respectfully disagrees.

Paragraph [0112], Heinzel discloses... Register card 1030 may allow defining the recipient of alerts, register card 1040 allows setting the minimum priority and the **minimum age of alerts to be sent** (i.e. "related to a deadline"). Register card 1050 (FIG. 8) may allow selecting the send mechanism, i.e., the message channel to be used for transmitting the **alert message**; the message channel to be used may be **time-dependent** (i.e. "deadline for making a user aware of a message containing information of value to the user"). The time-dependency may be set in the pull-down

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menu 1055. In the same register card 1050, the pull start date and the pull interval as well as the pull calendar may be set.

(B) Applicant argues that Heinzel et al. does not disclose, teach or suggest each and every limitation recited by claims 1, 27, 57 and 58 (and the subsequent dependent claims which depend there from).

In regards to point (B), examiner respectfully disagrees.

Heinzel does disclose the limitation recited by claims 1, 27, 57 and 58 (and the subsequent dependent claims which depend there from). Examiner is referring Applicant to point (A), and to the whole disclosure of Heinzel.

(D) Applicants argue that Claims 5, 6, 9, 10, 14, 16, 20, 47, 11 and 12 depend from independent claim 1, and Maruyama, Emens and Gusler do not rectify the deficiencies presented by Heinzel with respect to independent claim 1.

In regards to point (D), examiner respectfully disagrees.

The Examiner kindly submits that the applicant(s) misread the applied references used in the rejection. Actually, applicants are interpreting the claims very narrow by considering the broad teaching of the references used in the rejection. The aforementioned assertion wherein "Emens and Gusler do not rectify the deficiencies presented by Heinzel with respect to independent claim 1", was unsupported by objective factual evidence and was not found to be of substantial evidential value. For this assertion to have merit, it is important to applicants to provide some forms of

evidence that convincingly show that Examiner's references do not meet the claims language. Furthermore, Applicants are reminded that 37 CFR 1.111(b) states, "a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references does not comply with the requirement of this section". Thus, applicants' assertions are just mere allegation with no supported fact by failing to specifically point out how the language of the claims patentably distinguished them from the cited references. Applicants are reminded that the Examiner is entitled to the broadest reasonable interpretation of the claims. The Applicants always have the opportunity to amend the claims during prosecution and broad interpretation by the Examiner reduces the possibility that the claim, once issued, will be interpreted more broadly than is justified. In re Prater 162 USPQ 541, 550-51 (CCPA 1969). Hence the rejection is hereby sustained. Applicants are reminded that the claims are rejected under 35 U.S.C. 103(a) as being unpatentable over Maruyama, Emens or Gusler. Therefore, Maruyama, Emens and Gusler do cure the aforementioned deficiencies of Heinzel.

10. Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Examiner has cited particular columns and line numbers in the references applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

In the case of amending the claimed invention, Applicant is respectfully requested to indicate the portion(s) of the specification which dictate(s) the structure relied on for proper interpretation and also to verify and ascertain the metes and bounds of the claimed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to El Hadji M Sall whose telephone number is 571-272-4010. The examiner can normally be reached on 8:00-4:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on 571-272-4001. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

El Hadji Sall
Patent Examiner
Art Unit: 2157


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